

REMARKS

The application has been reviewed in light of the Office Action dated February 28, 2007.

Claims 2-13 are pending in this application, with claims 3, 4, 12 and 13 being in independent form. Claim 7 has been withdrawn from consideration. Claim 4 has been amended to correct a formal matter. It is submitted that no new matter has been added and no new issues have been raised by the present Request.

Claims 2-6 and 8-13 were rejected under 35 U.S.C. 103(a) as allegedly obvious from U.S. Patent 5,449,157 to Kawano in view of U.S. Patent 6,491,492 to Cook. Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submit independent claims 3, 4, 12 and 13 are patentable over the cited art, for at least the following reasons.

Independent claim 3 relates to a sheet processing apparatus, comprising a first roller pair conveying a sheet received from an external apparatus, a second roller pair conveying the sheet conveyed from the first roller pair, a jogging tray configured to receive the sheet conveyed from the second roller pair and jog the received sheet and a binding device configured to bind a stack of sheets received and jogged by the jogging tray. The second roller pair can be driven to rotate such that sheets received from the external apparatus and conveyed by the first roller pair one after another are pinched by the second roller pair one after another while being overlapped and stacked one upon another with leading edges thereof shifted stepwise one after another, the stacked sheets being held by the second roller pair to be further conveyed to the jogging tray. The second roller pair is driven to rotate at a circumferential speed that is slower than that of the first roller pair so that sheets conveyed by the first roller pair one after another are pinched by the second roller pair one after another while being overlapped and stacked one upon another with leading edges

thereof shifted stepwise one after another, the stacked sheets being held by the second roller pair to be further conveyed to the jogging tray.

According to an embodiment of the present disclosure, the system is capable of performing a “standby operation” when the binding part 8 is, for example, performing a binding operation or when sheet jamming occurs at the binding part or discharging part (for example, see page 10, lines 15-18 of the present disclosure). That is, since the second roller pair is rotated at a circumferential speed that is slower than that of the first pair, the sheets are stacked and pinched by the second roller pair while being overlapped one upon another. The stacked sheets are then held by the second roller pair to be later conveyed to the jogging tray (page 10, line 8 – page 11, line 17). Of course, the claims are not limited to the disclosed embodiments.

Kawano et al., as understood by Applicant, relates to a sheet processing apparatus including a plurality of stackers, each having at least one stapler. As described in the Office Action, rollers 401 allegedly correspond to the present Applicant’s first roller pair. Conveyance rollers 421 allegedly correspond to Applicant’s second roller pair and stacker 426 allegedly corresponds to Applicant’s jogging tray. A recording sheet P is fed by receiving roller 401 to the conveyance roller 421 which then feeds the sheet onto stacker 426. After the final recording sheet P of the first copy volume is stacked on the first stacker 426, the recording sheets P of the second volume are fed onto the second stacker 436, and while the recording sheets P of the second copy volume are fed onto the second stacker 436, the recording sheets P of the first copy volume are stapled with the first stapler ST1 (allegedly corresponding to Applicant’s binding device).

As understood by Applicants, since a plurality of stackers are provided in Kawano et al., there is no need to provide a device such as that described above. That is, in Kawano et al, since

after the final recording sheet of the first copy volume is stacked on the first stacker, the recording sheets of the second volume are fed onto the second stacker. Accordingly, there would be no need to drive the second roller pair to rotate such that sheets received from the external apparatus and conveyed by the first roller pair one after another are pinched by the second roller pair one after another while being overlapped and stacked one upon another with leading edges thereof shifted stepwise one after another, the stacked sheets being held by the second roller pair to be further conveyed to the jogging tray, as recited in independent claim 3. Independent claim 12 is believed to be patentable over the cited art, for at least similar reasons.

The Office Action also suggests that Kawano et al., discloses an area between the second roller pair and the jogging tray. This area allegedly corresponds to the “open area” as recited in claim 4. Applicant respectfully disagrees.

As recited in independent claim 4, the sheet received from the external device is conveyed from the first roller pair to the second roller pair through a **conveying path between the first roller pair and the second roller pair**, and an open area is provided in the conveying path (e.g., between the first roller pair and the second roller pair). That is, the claimed open area is provided in the conveying path which is between the first roller pair and the second roller pair. In contrast, the area noted in the Office Action is **after the second roller pair**.

Accordingly, Applicant finds no teaching or suggestion in the cited art of a conveying path between the first roller pair and the second roller pair and wherein an open area is provided in the conveying path, as recited in independent claim 4, or that when the second roller pair is driven to rotate such that sheets conveyed by the first roller pair one after another are pinched by the second roller pair one after another while being overlapped and stacked one upon another with

leading edges thereof shifted stepwise one after another, a trailing edge of each of the sheets conveyed by the first roller pair one after another can retreat from the conveying path to the open area after the sheet has been pinched by the second roller pair, as also recited in independent claim 4.

Kawano et al. also describes a delivery claw 424 which allegedly corresponds to Applicant's claimed discharging device. As understood by Applicant, claw 424 is protrudingly provided on the first delivery belt 425. When the belt 425 is rotated, the delivery claw 424 pushes the recording sheets P to send the recording sheets P onto the first delivery tray T1 (column 5, line 36-46, column 6, line 35-40).

In contrast, as recited in dependent claim 5, the discharging device is configured to cause the trailing edge of each of the sheets conveyed by the first roller pair one after another to retreat from the conveyance path (between the first roller pair and the second roller pair) to the open area (provided in the conveyance path between the first roller pair and the second roller pair) after the sheet has been pinched by the second roller pair.

Cook, as understood by Applicant, relates to an apparatus and method for batch feeding sheets. Nip rollers 18 (which allegedly correspond to Applicant's claimed second roller pair) are driven at a slower speed than the sheet feed conveyor 14 (allegedly corresponding to Applicant's claimed first roller pair) for the purpose of reducing bruising and buckling of the sheets when the sheets are dropped onto a table. The railing end of a dropped sheet is overlapped by a leading end of the next upstream sheet, assisting in maintaining control of the dropped sheet as it drops onto the table (Column 1, line 30-35).

Applicant submits that the disclosure in Cook of driving the nip rollers 18 at a slower speed than the sheet feed conveyor 14 for the purpose of reducing bruising and buckling of the sheets when the sheets are dropped onto a table in Cook is irrelevant to the sheet processing apparatus of Kawano.

Applicant finds absolutely no teaching or suggestion in the cited art that when the binding step is being performed, the second roller pair rotates at a decreased circumferential speed so that sheets received from the external apparatus and conveyed by the first roller pair one after another are pinched by the second roller pair one after another while being overlapped and stacked one upon another with leading edges thereof shifted stepwise one after another, the stacked sheets being held by the second roller pair to be further conveyed to the jogging tray, as recited in independent claims 3 and 13.

Accordingly, Applicant submits independent claims 3, 4, 12 and 13 are patentable over the cited art.

The Office is hereby authorized to charge any additional fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Entry of this amendment and allowance of this application are respectfully requested.

Respectfully submitted,



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